What is claimed is: CLAIMS A method for inducing or enhancing 5 and BMP-4.

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- chondrogenesis in cells comprising the step of exposing said cells to a matrix composition comprising of type I collagen
- A method for inducing or enhancing chondrogenesis in cells comprising the step of exposing said cells to a matrix composition comprising of type II collagen and BMP-4.
- A method for inducing or enhancing chondrogenesis in cells comprising the step of exposing said cells to a matrix composition comprising of type I collagen, hyaluronate and BMP-4.
- A method for inducing or enhancing chondrogenesis in cells comprising the step of exposing said cells to a matrix composition comprising of type II collagen, hyaluronate and BMP-4.
- A method according to any one of claims 1 to 4, 20 wherein said composition further comprises GDF-5.
  - A method according to claim 1, 2, 3 or 4 wherein said step of exposing said cells occurs in vivo.
  - A method according to claim 5 wherein said step 7. of exposing said cells occurs in vivo.

8. A method according to claim 1, 2, 3 or 4 wherein said step of exposing said cells occurs in vitro. 9. A method according to claim 5 wherein said step of exposing said cells occurs in vitro. 5 A method according to claim 6 wherein said cells comprise joint tissue. A method according to claim 7 wherein said cells comprise joint tissues. 12. A composition comprising an extracellular 910 11 matrix of type I collagen containing an effective amount of BMP-4 sufficient to induce or enhance chondrogenesis. 13. A composition comprising an extracellular matrix of type II collagen containing an effective amount of BMP-4 sufficient to induce or enhance chondrogenesis. 1 A composition comprising an extracellular matrix of type I collagen and hyaluronate containing an effective amount of BMP-4 sufficient to induce or enhance chondrogenesis. A composition comprising an extracellular 20 matrix of type II collagen and hyaluronate containing an effective amount of BMP-4 sufficient to induce or enhance chondrogenesis. - 9 -

16. A composition comprising an extracellular matrix of type I collagen containing an effective amount of a combination of BMP-4 and GDF-5 sufficient to induce or enhance chondrogenesis.

- 5 17. A composition comprising an extracellular matrix of type II collagen containing an effective amount of BMP-4 and GDF-5 sufficient to induce or enhance chondrogenesis.
  - 18. A composition comprising an extracellular matrix of type I collagen and hyaluronate containing an effective amount of BMP-4 and GDF-5 sufficient to induce or enhance chondrogenesis.

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19. A composition comprising an extracellular matrix of type II collagen and hyaluronate containing an effective amount of BMP-4 and GDF-5 sufficient to induce or enhance chondrogenesis.